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Title: (EN) METHOD AND DEVICE FOR PRODUCING A SHAPED BODY

(FR) PROCEDE ET APPAREIL POUR PRODUIRE UN CORPS FACONNE

(NL) WERKWIJZE EN INRICHTING VOOR HET Vervaardigen VAN EEN VORMLICHAAM

Abstract: (EN) Method for producing a shaped body, which method comprises the following steps: (1) applying a layer of pulverulent material to a surface, (2) patternwise applying at least one liquid to the layer of pulverulent material, forming a layer of patternwise bound-together pulverulent material, (3) repeating steps (1) and (2) a predefined number of times, so that a number of successive layers of patternwise bound-together powder, is formed, the successive layers of bound-together pulverulent material together forming the shaped body, and (4) removing the unbound powder, in which the liquid comprises water and the pulverulent material comprises at least one component which forms a binder after contact with water in step (2).

(FR) On decrit un procede de production d'un corps faconne qui consiste a: 1) appliquer une couche d'une matiere pulvrenante sur une surface; 2) appliquer en motifs au moins un liquide sur une couche d'une matiere pulvrenante pour former une couche de matiere pulvrenante fixee en motifs; 3) repeter les etapes 1 et 2 un nombre preetabli de fois de maniere a former un certain nombre de couches successives de poudre fixee en motifs, lesdites couches successives formant ensemble le corps faconne; et 4) eliminer la poudre non fixee, dans laquelle le liquide comprend de l'eau et la matiere pulvrenante comprend au moins un element formant un liant au contact de l'eau de l'etape 2.

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This invention relates to a method and device for producing a shaped body. This cited document includes the following steps:

- (1) applying a layer of pulverulent material to a surface,
- (2) patternwise applying at least one liquid to the layer of pulverulent material, forming a layer of patternwise bound-together pulverulent material,
- (3) repeating steps (1) and (2) a predefined number of times, so that a number of successive layers of patternwise bound-together powder, is formed, the successive layers of bound-together pulverulent material together forming the shaped body, and
- (4) removing the unbound powder.

The pulverulent material comprises a component which, as a result of coming into contact with the liquid sprayed on, forms a binder (the "adhesive component").

This binder includes; dextrin powder, (carboxy) methylcellulose, wallpaper adhesive powder, gelatin, inulin, gum arabic, polyvinyl alcohol, cement, plaster, a water soluble salt and finely ground granulated sugar. A powder in which the adhesive component is polyvinyl alcohol, (carboxy)methylcellulose, gelatin and/or dextrin is preferred.

Examples of suitable flow promoters are glycols, such as diethylene glycol and monoethylene glycol, and lower alkanols, such as ethanol, 1-propanol and 2-propanol.

The liquid may contain one or more colorants.